



STATISTICAL STUDY ABOUT THE INFANT MORTALITY IN SHKODRA FOR 1960-2005

Zamira SHABANI

Dipartement of Nursing, University of Shkodra, Albania. shabanizamira@yahoo.com

Key words:

Infant Mortality,
fatal cases,
ICDS,
disease,
diagnosis

SYNOPSIS

In this article are analysed the fatal cases with different diagnosis according to International Classification of Diseases (version 9) in Shkoder, during 1960–2005. The statistical data used in this article are collected from the Office of Public Health of Shkodra. All data are divided in two time periods which are compared with each other. After the statistical data-processing is concluded that the infant mortality level is reduced. Approximately 90 % and the structural casual of the infant mortality is changed. The infant mortality level is reduced from 129,7‰ in the year 1960 to 13,5‰ in the year 2005. The cause of death for the infant mortality generally is different for the two studied periods but the pulmonary diseases are continue to be the main cause. This condition of pulmonary diseases is connected with air pollution of our area in the last fifteen years, the low level of environmental education and health education level of the parents.













INTRODUCTION

The North of Albania where Shkodra is part of them, the absent or no favorable of the social political and finances destination for this part, represent a high level of poverty and a big difference between the poorly and reaches, in particular in town. In 2003, the total found of the investment public, education, health it was the lower in the three last year. 30% of the population lives in the relative condition of the poverty, in the meantime the number of the vulnerable subjects are increased. (italcoopalbania.org/new//pdf/Nord_Albania). They decide to leave the rural area to go in the urban area. These family destabilized in the town are exempt from every authorizations and institutional rights. They are not registered in the respect office of the civil state of the administrative part. So they can not profit from the scheme of social assistance inside of the new urban context. They results exempted from the access of education, health care and social services. The population is characterized from a continue presence of the younger (0-19 years old is 41,75 in total). In the

Region of Shkoder the level of the unemployment is very height (26,8% in general and 37% in the urban area): in based data of the registration in 2001 ,in the 6 towns of this area, resulted 16326 people unemployed. The most part of the unemployed results between 20 - 34 year old or over 34 year old. In the rural areas are increased the number of abandonees peoples with or no physic ability exempted from health care and because the new members of family emigrates. So the social, economic and health level not favorable influence in the infant mortality level. It is an important indicator for developing of a country. Pediatric is one of the most important parts of medicine, because it serves the most important part of the population which are the children. (Buonomo. E. 2007, 63, 7-20.) During the years the health code has changed giving mothers and children a priority including: protection health care during school ages, social health for children, psychiatric sector, handicap children, social services working with different organizations. These institutions have to coordinate their work in a way the children are considered as a biological, psychological and emotional being and also take care of these children through their integration through life, eliminating any possible classification in an early age. Children's and the family's health should be treated as one .this policy should be familiar to the community in order to make it effective at home or at school. The time spent between a new mother and her child must be valued .The new mother is especially receptive from her family members than doctors. In developed countries more than 50% of population is under 20 years old. The infant mortality rate is a worldwide indicator. It reflects the birth condition and the life style until 1 year old. Mortality rate- One of the main indicators of the developing of a country is also the infant mortality. Infant mortality is the number of death children 0-1 years old per 1000 living birth, publicised every year. In developing countries, the infant mortality has decreased under 10 per 1000 and the dominating causes are the genetically diseases, accidents and unpredicted deaths. (www.census.gov/ipc). But the infant mortality is reduced from 40 per 1000 at the early 50`s and less than 5 per 1000 in 2000 in North Europe. (HARRISON, 1999) This reduction of the infant mortality is a proof of a evolution of health conditions, also the increase of medical care given to the mother and the improvement of lifestyle. On the other side this reduction on the infant mortality reflects a prenatal care which tents to improve the conditions of birth, to reduce the number of handicap children, to raise the paediatric care and to improve the overlook during the after birth. We can see this in France, a concrete example of this mortal rate reduction. In 1945 this mortality was 108 per 1000, in 1955 it decreased in 37,2 per 1000, in 1970 in 17,9 per 1000 and in 1995 it decreased in 4,9 per 1000.In developed countries these data is significant larger due to deaths from respiratory or digestive diseases. Every seven seconds the child of the age of less than 5 years old dies due to acute respiratory infection. According the data for the infant mortality level in Montenegro in the year 1991 (11.2‰), in the year 2001 (14.6‰) and in the year 2002 (10.8‰) we can see typical changes for the post communists countries in the transition. (ANNONYMOS, 2007). If we compare this dates it results that they are lower than Albanian's dates. Even in our country the main raison of infant deaths are diseases of the respiratory

system, digestive system and other infective diseases. The infant mortality rate is 21 per 1000 birth which presents a low health condition and economic level.

Infant Mortality (Death for 1000 birth alive) compare with the region countries

Rank	Country	Rate	
1	Angola	185.4	
107	Albania	20.8	
111	Bulgaria	19.9	
137	Serbia and Montenegro	12.5	
144	Bosnia and Herzegovina	9.8	
145	F.Y.R.O. Macedonia	9.8	
151	Hungary	8.4	
153	Slovakia	7.3	
154	Poland	7.2	
158	Croatia	6.7	
179	Slovenia	4.4	
184	Czech Republic	3.9	

(Data for year 2006-WHOO)

Which are the main reasons of the infant mortality?

These reasons are due to: 1. Incent pathologies (vascular kidney syndrome, praevia placenta, the detached of placenta, incompatibility of rhesus group, infections, diabetes) 2. Congenital malformations (chromosomal aberrations, viral, bacterial, parasitic infections, medicaments, radiations) 3. Prematurance. 4. Hipotrofics (new mother, smoke, alcohol, hypertension, genitals infections). 5. Soference of baby during the birth (distocis, respiratory depress, neurological sufferance, jaundice, anemia, infections). 6. After birth (acute die of neonate, accidents and infections). Some diseases are impossible to treat as chromosomal anomaly that can diagnostic during the birth, but for some others is necessary the immediate intervene and medical attention. Here are included the premature baby (under 37 weeks), hypotrophy baby (under 2500 gr) and the baby removed that understand the remove from mother for different reasons , health care , the transfer in un other unit, at the same hospital or in un other hospital. Regardless of progress of medicine is very difficult to understand that hypotrophy is due to the increase of poorly or to the increase of the multiply pregnancy, that increase the number of premature and hypotrophy babies. The premature babies are at the risk for the treatment if is necessary to remove, if they left he mother for attention more special in the unit intensive care. (Mourman.Michele-2002).

The prevent of infant mortality consists in three phases:

1. Prevention before birth: A. The examination before marriage –which consists on the TBC examination and some sexually transmitted diseases, health education of the couple and doing some necessary analyses (serological, measles, toxoplasmosis, blood group ABO, Rhesus, HIV/AIDS) After they get the results the doctor explains and orientates the couple if necessary to a specialized doctor. B. The protection of pregnant woman –consists on the declaration of her pregnancy, woman cartelization and doing some exams such as : clinically exam blood pressure ,the investigation for albumin urine, glucose urine, toxoplasmosis, syphilis's ,HIV/AIDS and three echo (4`th,12`th,24`th week of pregnancy).The total number of visits is seven. The thirist one should be before the third month. The others every which month, and under the birth the woman should be under survey until the 8`th week.

2. Prevention during the birth- The hospital has to follow some requisitions of doctors, the hospital stuff, equipments, surgery rooms and the reanimation. Here are included the cartelization and the children's rights.

3. Prevention after birth- it consists on having 20 obligatory visits: 9 during the first year, three during the second and two during every year. Here the child has his / her cartelization, certificate of birth and health certification. In his health cartel is written everything from his intrauterine life and the years of his/her childhood, the weight, length, cranial perimeter, clinical examinations, psychomotor development, nutrition, vaccination, the day of take of flour meal, vitamin D, fluorine, the echo of the ankles , the verification of the view and the hearing in the 4`th month.

Mother's and child's protection. Mother's and child's protection is a mission and an organisation in the same time. Mission means the organisation of all the elements (medical, psychological, social and health education to prevent and screening handicap children under 6 years old and to consult their families about their care survey and control of all the services which will be necessary at the acceptance of these mothers and their children. This consists in a psychological and social sustain of pregnant women and new mothers. As you can see this is the mission of future mothers also new mothers and their babies. The importance of this mission consists on coordinating all kinds of services for children and it can go ahead only with lots of disciplines working together. Organisation means a structure which works based on the collaboration of doctors, midwife, psychologists, teachers, social assistants and helping stuff. MNF- with its actions promotes the family education and consultations. Improving the quality of life for thousands of children it consists on preventing the disagreement, entering as global policy of mental health. (Mourman.Michele-2002). The field of its action is consulting mothers, parents and children also social-medical actions. This service is offered to all people. Statistics show that there is a pattern between the causes of illness and those of death (www.unicef.org). They are: respiratory system diseases-they take the first place of illness in developing countries. This is influenced from some factories such as; young age, underweight birth, malnutrition, teenage mothers, low level of education in the community, air pollution, industrial waist, urban residence, life condition, heating, feeding, animals, no vaccination. Digestive system diseases - that diarrhoea is the main reason of diseases in this age group in developing countries. According to WHOO study, every child of

there countries can go through 3-4 times of acute diarrhoea in a year 3 million children die every year on the word of due to diarrhoea.(Soros "Albania 2003). The main cause is malnutrition. These diseases are influenced by some risk factories such as low economic and social condition, overpopulation, low level of hygiene, polluted water, no breastfeeding. As we can see this group age is the weakest diseases wise and because their organism is growing and developing and maturing. (WHO Reported, 2000)

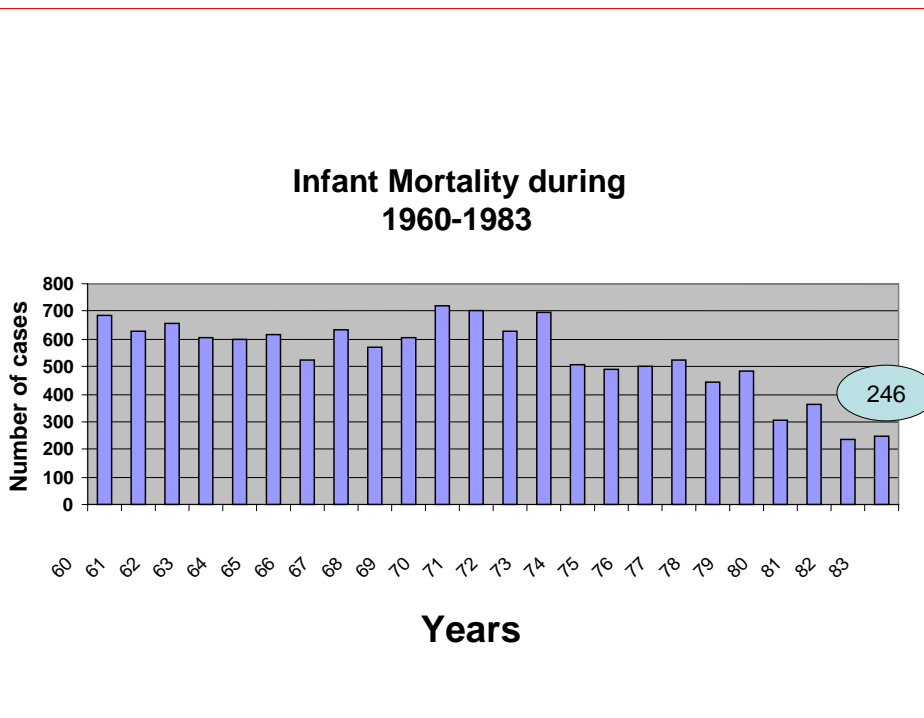
MATERIALS AND METHODS

The subject of this work is the infant mortality in Shkoder. In this article is analyzed the fatal cases with different diagnosis according to International Classification of Diseases (version 9) in Shkoder, during 1960–2005. The statistical data used in this article are collected from the Office of Public Health of Shkoder. (ANNONYMOS, 1958-2005). All data are divided in two time periods which are compared with each other. The method of study is simple, descriptive and comparative.

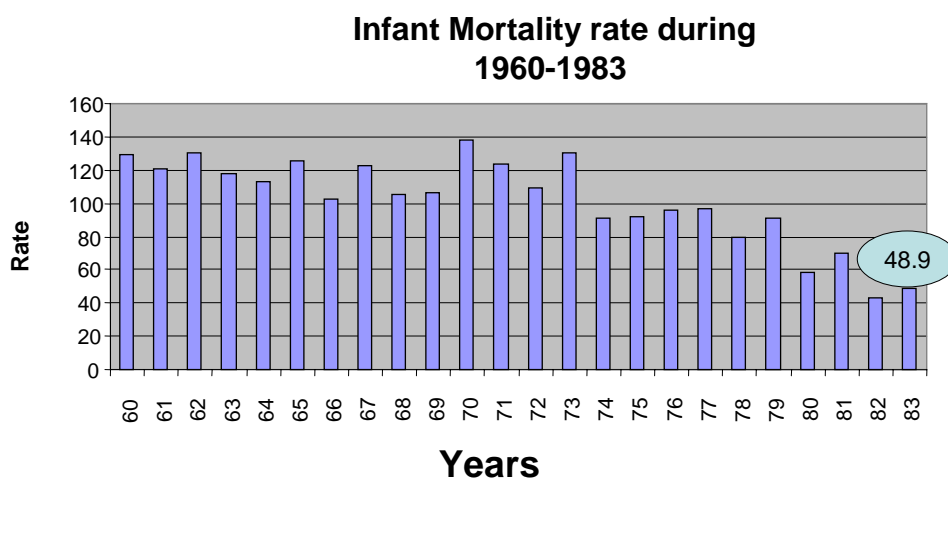
Tab. 1. Infant mortality during 1960 - 1983

Year	Nr of cases	‰	Month I	%	Month VI	%
1960	687	129,7	151	21,9	375	54,3
1961	630	120,7	144	20,9	413	65,8
1962	655	129,9	132	20,1	407	63,3
1963	606	117,7	187	30,8	432	71,2
1964	596	113,2	136	22,8	441	73,9
1965	617	125,5	163	26,4	464	75,2
1966	525	102,5	139	26,4	392	74,6
1967	635	123,1	164	25,8	347	54,6
1968	572	105,5	155	27,0	363	63,4
1969	602	105,9	163	26,7	454	75,3
1970	717	137,8	194	27,0	503	70,1
1971	700	123,6	185	26,4	472	67,3
1972	630	109,7	183	30,4	502	79,6

1973	698	129,9	131	18,7	464	6,4
1974	507	90,6	176	34,6	362	71,2
1975	491	92,4	139	28,2	318	62,7
1976	502	95,7	135	27,4	341	67,9
1977	522	97,2	126	25,0	347	66,4
1978	442	80,0	86	16,4	316	71,6
1979	483	90,9	123	25,4	318	63,7
1980	304	58,6	96	31,5	231	75,9
1981	360	69,7	103	28,6	283	78,8
1982	237	43,5	67	28,2	175	73,8
1983	246	48,9	68	27,6	189	76,8



Graf. 1



Graf. 2

Tab. 2. Causes of death for infant mortality during 1958 – 1983

Cause	Influenze	Broncho-pneumonia	Pertusis	Premature	Gastro-intestinalis
Year					
1958	1	59	0	0	84
1959	11	67	22	26	100
1960	34	80	29	29	90
1961	60	121	4	26	142
1962	118	137	1	25	103
1963	76	136	4	28	109
1964	61	174	9	21	112
1965	75	195	0	24	61
1966	25	181	0	17	62
1967	13	256	8	39	71
1968	31	220	1	30	71

Natura Montenegrina 7(2)

1969	26	310	1	35	70
1970	35	425	0	30	56
1971	21	476	0	12	39
1972	10	463	0	14	45
1973	5	459	3	14	75
1974	20	329	6	20	36
1975	12	320	0	22	31
1976	10	338	0	29	39
1977	0	333	0	35	31
1978	11	258	1	29	12
1979	7	300	1	65	14
1980	2	230	0	47	15
1981	2	240	0	60	34
1982	0	132	0	39	12
1983	3	136	0	20	8
Total	669	6375	90	736	1522

Cause	Cardiopathic	Hemorrhagic cerebral	Bronchitis	Skin diseases	Anomaly congenital
Year					
1958	316	0	0	0	6
1959	263	0	2	5	6
1960	318	6	1	8	3
1961	172	8	5	5	6
1962	180	6	4	9	15
1963	157	5	14	1	13
1964	163	10	4	0	15
1965	183	6	8	1	15
1966	148	11	1	0	8
1967	144	8	0	2	9
1968	144	10	4	1	11
1969	99	5	2	1	7

Shabani: STATISTICAL STUDY ABOUT THE INFANT MORTALITY IN SHKODRA FOR 1960-2005

1970	101	7	1	0	9
1971	76	2	0	0	4
1972	61	3	0	0	5
1973	82	4	0	1	13
1974	65	5	0	0	5
1975	62	1	0	0	3
1976	58	1	0	0	4
1977	68	0	0	0	0
1978	89	8	0	0	19
1979	70	5	0	0	8
1980	11	2	0	0	0
1981	14	3	0	0	0
1982	29	0	0	0	14
1983	40	0	0	0	3
Total	3113	116	46	34	201

Cause	Jaundice haemolytic	Tetanus neonatal	Sepsis	Asphyxia	The others
Year					
1958	0	0	0	0	66
1959	0	2	0	0	15
1960	0	0	0	0	89
1961	0	5	1	0	75
1962	1	0	0	0	56
1963	2	7	0	0	54
1964	2	5	2	0	18
1965	6	5	1	0	37
1966	1	6	3	2	62

Natura Montenegrina 7(2)

1967	0	4	1	2	78
1968	1	2	5	1	39
1969	0	5	1	2	39
1970	2	1	2	1	46
1971	0	0	0	2	29
1972	0	0	1	2	27
1973	0	0	4	0	36
1974	0	1	1	0	19
1975	0	0	0	3	40
1976	1	0	0	0	19
1977	0	0	0	0	55
1978	0	0	0	0	15
1979	0	0	0	0	13
1980	0	0	0	0	0
1981	0	0	0	0	7
1982	0	0	0	7	4
1983	0	0	0	2	44
Total	16	43	22	24	982

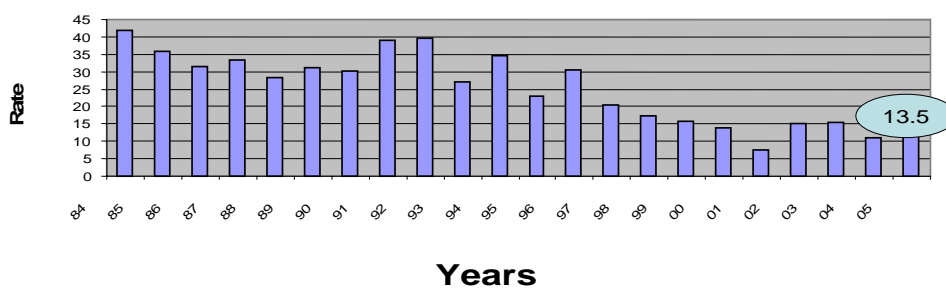
Tab. 3. Number of deaths in Shkodër during 1984-2005

Time Year	0-6 day	7-27 day	28-365 day	0-1 year	‰
1984	36	36	162	234	42,0
1985	32	30	132	194	35,8
1986	24	20	125	169	31,4
1987	14	27	142	183	33,3

1988	19	19	126	164	28,3
1989	50	23	109	182	31,3
1990	30	24	127	181	30,3
1991	56	25	146	227	39,0
1992	46	26	149	221	39,7
1993	18	20	92	130	27,0
1994	36	17	90	143	34,7
1995	NI	NI	NI	89	22,9
1996	32	14	42	88	30,5
1997	37	7	36	80	20,4
1998	34	12	18	64	17,2
1999	24	2	24	50	15,7
2000	21	6	17	44	13,9
2001	19	1	0	20	7,5
2002	NI	NI	NI	42	15,0
2003	25	2	13	40	15,3
2004	16	2	7	25	11,06
2005	18	3	9	30	13,5

NI-No Information

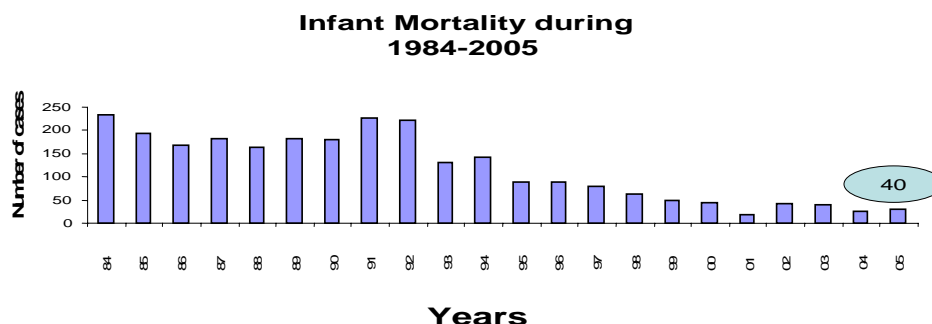
Infant Mortality rate during 1984-2005



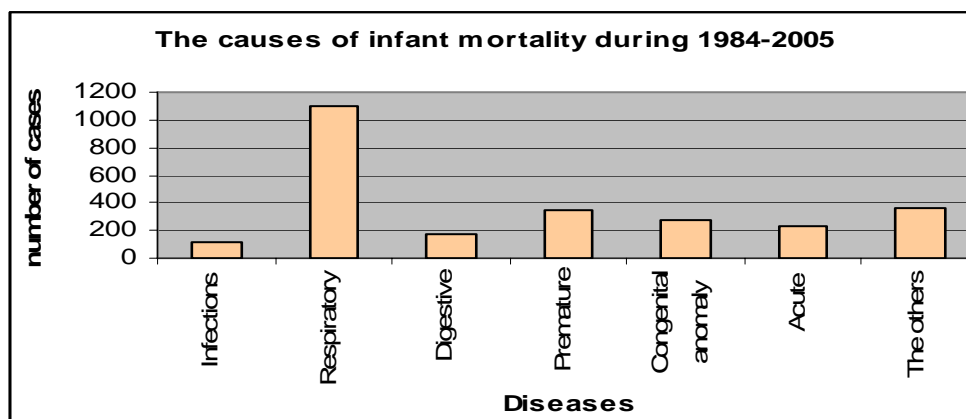
Graf. 3

Tab. 4 Causes of infant mortality during 1984 – 2005.

Cause Year	Infections	Respiratory	Gastro- intestinally	Neonatal	Congenital	Acute	The others	Total
1984	7	104	27	33	0	42	21	234
1985	6	90	8	24	29	23	14	194
1986	3	88	12	4	19	8	35	169
1987	19	86	15	6	24	11	22	183
1988	5	74	15	7	26	6	31	164
1989	14	77	8	35	23	8	17	182
1990	10	73	11	14	22	30	21	181
1991	6	104	17	23	23	16	38	227
1992	3	93	13	30	25	15	42	221
1993	1	58	4	12	8	16	31	130
1994	0	63	5	26	10	23	16	143
1995	35	31	18	0	2	2	1	89
1996	4	36	6	13	11	6	12	88
1997	0	32	10	19	9	1	9	80
1998	2	15	9	16	10	2	10	64
1999	1	19	4	16	2	2	6	50
2000	1	13	2	9	6	4	9	44
2001	0	11	0	1	3	3	0	18
2002	1	13	1	11	4	3	9	42
2003	0	5	0	18	5	4	8	40
2004	1	4	1	12	2	3	2	25
2005	0	3	0	14	6	2	5	30
Total	119	1092	176	343	269	230	359	2588



Graf. 4



Graf. 5

RESULTS AND DISCUSSION

In Albania, and Shkodra in particularly, as in the developing countries post communists during the time of transition from old systems in the actual state, the problems of health and of economy reflects clearly at the rate of the infant mortality. In this article we can see the data of the infant mortality during the years from 1984 at 2005. These data are documented in the books of the institutions of the public health and are not publicized before (1). To understand better the data for these 20 years, we have presented I data of the infant mortality in Shkoder from 1960 till 1983 (tab. 1). In this table we can see the absolute number of death for years (at 1° month of live, at 6° month e al 1° year) and relative rate of mortality expressed in ‰. In 20 year the decreased of absolute number of deaths (from 687 till 246) correlated with a decreased of rate of infant mortality (from 129,7 till 48,9 ‰). This data are presented in the fig. 1-2. The specific cause of mortality in this period are presented, year for

year in the tab. 2. We can see that the main cause of infant mortality is the infection diseases especially of respiratory system and digestive system. Most important is the number of deaths of the congenital heart diseases in Shkoder. Also the viral infection diseases, premature are from the main cause of deaths. The data for the infant mortality in Shkodra during the period 1984-2005 are represented in the tab. 3. In this table are represented the absolute number of death for every year (in the first 7 day of live, in the 1° month and in the 1° year) also the relative rate of mortality in the 1° year of live, expressed in ‰. In these 20 year we can see a reduction of the infant mortality (from 42,0 at 13,5 ‰). All this data are represented in the fig. 3-4. The specific cause of infant mortality in this period, for every year, is represented in the tab. 4. The infections acute respiratory are the main cause of deaths in all this period, and in fact are reduced the deaths from the gastro-intestinal infections. The premature is an important cause infant mortality.

CONCLUSIONS

The infant mortality during the period 1960-1983 is decreased from 129,7 ‰ to 48,9 ‰. Tab nr.1. The infant mortality during the period 1984-2005 decreased from 42,0‰ to 13,5‰. Tab.nr.3. The principal causes of the infant mortality during the period 1960-1983 are: the respiratory, cardiac, digestive and infection diseases. The principal causes of the infant mortality during the period 1984-2005 are: respiratory, neonatal and the others diseases that are not diagnostics. During the years, from 1960 the health conditions of our community are changed to better, but the level of the infant mortality is still high. The level of national dates is higher than level of Shkoder. Comparing the Shkodra's dates with the Montenegro's and the international's dates for infant mortality we can see that these levels are very high.

REFERENCES

- ANNONYMOS, 1958-2005. Dati statistici presi dal ufficio di Statistica di Salute Pubblico Scutari.
- ANNONYMOS, 2007. Health Promotion and Disease Prevention - A handbook for teachers, researchers, health professionals and decision makers - Authors from: Albania, Bulgaria, Croatia, Germany, Macedonia, Montenegro, Romania, Serbia, Slovenia, Turkey, USA . - Skopje 2007
- Buonomo E., Doro Altan A.M., Cenko F., Godo A., Scarcella P., Fioramonti L., Marazzi M.C., Palombi L.; A child health promotion intervention in Albania: results and lessons learned. Ig. Sanità Pubbl., 2007, 63, 7-20.
- HARRISON, 1999 "Principi di medicina interna"
- INSTAT. 2001 "Indicatori di sanità per anni 1994-1998"
italcoopalbania.org/new/pdf/Nord_Albania

Mourman.Michele-2002. Puericulture et pediatrie "La maternite et la petite enfance:pre -requis"

Soros "Albania: I sistemi di cure sanitarie in tansizione" 2003

WHO Reported 2000

WHO Reported 2006

www.unicef.org (United Nations Children's Fund)

www.census.gov/ipc (United States Census, International Programs Center)

